TABLE 14. LEVELS AND CHANGES IN SELECTED INTEREST RATES, 1982 (In percentage points)

	January to June Average	October to December Average	Change
Short-Term Rates			
Discount rate	12.0	9.3	2.7
Federal funds rate	14.4	9.3	5.1
3-month Treasury bill rate	12.6	7.9	4.7
Yield on commercial paper	13.6	8.8	4.8
Prime rate	16.4	12.0	4.4
Long-Term Rates			
Mortgage rate	15.8	14.3	1.5
Moody's AAA Corporate Bond Yield	14.8	11.9	2.9
Memo: Inflation Rate (stripped CPI)	5.7	5.1	0.6

asset--20 or 30 years, or even more--from the nominal rate on that security.) 8/ There are reasons to speculate, however, that real long rates are even higher than real short-term rates. For example, if agents in financial markets expect large future budget deficits and tight future monetary policy they probably expect short-term real interest rates to be high in the future as a result. This could raise current real long-term rates.

Another factor that may have raised real long-term rates is the unusual degree of uncertainty about the future course of both monetary and fiscal policy. Will future budget deficits be reduced significantly? Will

8/ In principle, real interest rates would be observable if the Treasury issued discount bonds whose face value was indexed to an appropriate measure of the price level. The discount would reflect only the real interest rate and, possibly, tax factors.

velocity begin growing again? What monetary targets will be reimposed? Will the targets be adjusted for shifts in velocity? If the targets are not reinstated, which of several alternative strategies, discussed below, will the Federal Reserve adopt? Such questions give rise to uncertainties about the future behavior of bond and stock prices, and may raise longer-term real interest rates by increasing risk premia.

Alternative Monetary Policy Strategies for 1983 and Later Years

Monetary policy is at a crossroads. The Federal Reserve's stringent monetary policies have contributed to the decline in inflation, but at the cost of a severe recession both in the United States and elsewhere. The monetary targeting system may have made the recession worse than the Federal Reserve expected. Moreover, there is a risk that adhering to the same strategy in the future might either stifle recovery or generate inflation, depending on the behavior of velocity. Some observers believe that the Federal Reserve should choose an alternative strategy. In assessing this proposal, however, it is important to bear in mind that only some results of policy during the past three years reflect technical aspects of the particular (monetary-targeting) approach that has been in use. In other respects, the way the economy has behaved reflects the anti-inflationary goals of monetary policy. High unemployment would likely emerge regardless of the strategy chosen, as long as the goals of policy were the same. It would therefore be useful for Congress and others to know what the Federal Reserve's objectives for GNP, prices, and unemployment are so that the objectives could be changed if they seemed inappropriate.

The main technical difficulty with the use of monetary targets, particularly rigid ones, is that the relationship between money and GNP (velocity, as defined in the last section), may change. When this happens, an offsetting adjustment is needed in money growth targets to ensure that GNP growth and interest rates do not swing sharply, as happened in 1982. Such adjustments may not be successful, however. Information about the behavior of GNP is delayed and the magnitude of monetary policy effects are uncertain and occur with a lag.

Alternatives to Monetary Targets

Some observers favor abandoning the money-targeting strategy. The principal alternatives that have been discussed so far include:

- Targets for nominal GNP;
- Targets for real interest rates;

- o Targets for commodity prices;

- o Targets for the growth in total debt.

Nominal GNP Targets. Under this approach, the Federal Reserve would announce a goal for growth in total nominal GNP instead of, or in addition to, its targets for the growth in various monetary aggregates. The Federal Reserve would then be able to adapt to evidence of a changing economic environment without having to change all of its previously announced targets. This would eliminate much of the present confusion caused by shifts in velocity.

A virtue of GNP targets is that they would, if their announcement was sufficiently detailed, entail an explicit statement by the Federal Reserve of the levels of prices and real output that it believes are consistent with a given GNP target. Such a statement would make it easier for the Congress and others to decide whether the central bank's objectives are appropriate. A problem is that if the monetary authorities failed to hit their GNP targets precisely, it might erode public confidence in the Federal Reserve System.

Interest-Rate Targets. An alternative approach would be for the Federal Reserve to announce targets for one or more short-term interest rates. In most versions of this proposal, a real interest rate would be used--that is, the level of some rate after subtracting a measure of the expected rate of inflation.

Interest-rate targets would need to be raised or lowered over the course of the business cycle to avoid making the cycle worse. 9/ It would be difficult to tell at exactly what level the target should be set, however, because of unpredictable changes in the way interest rates affect the economy. (This is the same problem that arises under monetary aggregate targets because of shifts in velocity.) Another problem stressed by officials of the Federal Reserve is that real interest rates themselves are difficult to measure because expectations of inflation are unobservable.

9/ Under monetary-aggregate targets when velocity is not behaving erratically, interest rates should be expected to fall during recessions and rise during recoveries, and thus automatically help stabilize the economy. It is questionable in any case whether the Federal Reserve could maintain a fixed interest rate target for a long period if inflationary expectations changed sharply.

Commodity Price Targets. Targeting an index of commodity prices would contribute to stabilizing the price level. Proponents of this course argue that reducing uncertainty about the price level would permit better allocation of resources, thus increasing the level of economic output. Other analysts believe that the cost of achieving this stability of the price level would be high in terms of short run losses in output and employment.

Debt Targets. Another possibility, as an alternative or supplement to the present approach, would be the use of targets for total debt in the economy. Recent studies have shown that debt is as closely associated with GNP as is the money supply. Since the Federal Reserve can indirectly control a large component (bank credit) of total debt, some argue that it is possible to control of GNP through this approach. A liability at present is that little is known about why debt and GNP are so closely related; no well-developed theory exists, as in the cases of money and real interest rates.

Monetary Policy in 1983

What strategy will the Federal Reserve choose from among those that have just been discussed? There has been no indication that the bank will abandon money aggregate targets. Thus, many observers, including CBO, assume that it will continue to announce monetary aggregate targets, but will adapt these targets more quickly to changes in velocity than it has hitherto, thus moving somewhat closer to a system of nominal GNP targets. On a concrete level, statements by the bank's officials suggest that their targets, of whatever kind, will be chosen with a view to fostering a moderate economic recovery in 1983.

CBO has assumed that the Federal Reserve will adopt a target of 6 to 9 percent growth in M2, but will continue to permit growth above this range if velocity fails to rebound from its sluggish performance of last year. If this happens, interest rates may stay low enough (despite the pressures from large federal budget deficits) to stimulate and sustain the recovery. If velocity does shoot up, the bank may hold money growth at or near the bottom of the target range. This would hold the economy to a moderate recovery. Indeed, if the Federal Reserve did not offset a rapid "snap back" in velocity with lower money growth, many economists would worry that a new round of inflation would threaten.

While the bank may be expected to offset any clear swings in velocity in order to achieve its GNP targets, doing so may be difficult because sustained changes in velocity are not easy to recognize. There is a risk, for example, that interest rates could rise sharply and stifle economic recovery. A sharp rise in rates might also exacerbate the already-serious debt-service problems of many foreign governments and U.S. corporations, perhaps

leading to defaults. Loans that entail a serious default risk currently represent a significant percentage of all assets of some U.S. banks. One or more major defaults would probably raise fears about the solvency of banks, causing funds to be withdrawn and forcing the central bank to intervene as lender of last resort. The resulting increase in bank reserves might expand the money supply significantly. 10/ At the same time, nominal and real interest rates would perhaps increase, reflecting both an increase in the perceived riskiness of financial assets in general and a perception that a period of reinflation was at hand.

Conclusion

Some improvement in credit conditions, particularly long-term interest rates, appears essential for a strong and enduring economic recovery. Whether it occurs will depend, however, on the course of fiscal and monetary policies. Current projections of a federal deficit climbing continuously for the foreseeable future are troublesome in this respect, because financing such a deficit would put upward pressure on interest rates. The CBO estimates that the deficit reduction needed in coming years, by the standards discussed earlier in this chapter, is very large--in the range of $110 to $260 billion by 1988.

Although there is widespread agreement on the need for budget policies that will reduce future deficits, there is less agreement concerning the appropriate course of monetary policy. Some observers believe that the Federal Reserve must hold short-term interest rates down for a time if the recovery is to be sustained, but it is not yet clear to what extent the central bank shares this objective, or what targeting strategy it will undertake in 1983 and later years. Others believe, on the other hand, that the Federal Reserve should continue to hold money growth within target ranges on the ground that an interest rate policy would inevitably lead to a resurgence of inflation. One difficulty is that the environment in which money targeting operates--particularly the behavior of the velocity of money--is also highly uncertain.

10/ The central bank might try to offset the increase in reserves through contractionary open-market operations. This would put upward pressure on real interest rates, which might already be quite high despite the initial monetary expansion. The bank could probably not offset the initial expansion precisely, so a significant net change in the money supply would almost certainly occur.

From a longer-term perspective, the financing of the large structural budget deficits currently being projected threatens to draw so heavily on the capital markets that it will crowd out private investment. This could have serious long-run consquences for the U.S. economy. Much depends, however, on the strategy that monetary policy adopts in the meantime. A system of rigid monetary-aggregate targets would increase the danger of crowding out private investment.

CHAPTER V. POLICY OPTIONS TO REDUCE UNEMPLOYMENT

Slow growth in the economy since 1979, including two recessions, has substantially lowered inflation but raised unemployment to record postwar levels. Most forecasters expect it to decline very slowly, remaining around 10 percent at the end of 1983 and 9 percent at the end of 1984.

A principal issue that confronts policymakers is whether or how to respond to this persistent slack in the labor markets. Three avenues of approach would be:

- Countercyclical policies--either to stimulate the economy through monetary and fiscal measures, or to provide jobs through public works and public service employment.

- Long-run policies aimed at reducing noncyclical unemployment--for example, by strengthening competition, and by retraining workers.

- Income transfer policies to mitigate the hardship of unemployment--such as extended unemployment insurance benefits, work-sharing, and increased access to welfare for some groups of the unemployed.

After reviewing the unemployment situation, this chapter analyzes each of these general approaches. Its major conclusion is that policymakers are faced with a choice between fighting inflation and fighting cyclical unemployment. In the short run, it is impossible to do both effectively. It would, however, be possible to continue fighting inflation and at the same time to reduce the burden of unemployment by strengthening the income safety net.

UNEMPLOYMENT: A REVIEW OF THE SITUATION

At the end of 1982, the unemployment rate stood at 10.8 percent of the labor force--the highest rate in more than 40 years. In all, about 12 million workers were unemployed in December. Many more, perhaps about 28 million, experienced unemployment at some time during 1982. 1/

1/ Information on the total number of workers who experienced unemployment during 1982 will not become available until well into 1983. In

The Natural Rate of Unemployment

Economists refer to the "natural rate of unemployment" as occurring when labor markets are in overall balance. It represents the level of unemployment consistent with unchanging inflationary pressures in the labor market. In the absence of disturbances from outside the labor market such as oil price shocks, competitive adjustments tend to bring about the natural rate of unemployment--though this could take a long time. The term "natural" does not refer to laws of nature or imply that unemployment could not be further reduced by changes in institutions, or by providing training, labor market information, and placement services.

Estimates of the natural rate of unemployment have increased substantially over the last two decades. In the early 1960s, 4 percent unemployment was thought to represent the lowest noninflationary unemployment rate. Four percent was selected because unemployment had reached approximately that level in the mid-1950s without a major acceleration of inflation. In later years, attempts were made to determine the level of unemployment that corresponded to the earlier 4 percent standard, in terms of economic slack. Economists have also attempted to estimate the natural rate of unemployment using econometric techniques. Recent estimates of the natural unemployment rate, while subject to great uncertainty, have tended to be in the $5\frac{1}{2}$ to $6\frac{1}{2}$ percent range--with some as high as 7 percent.

At times, special cost trends outside of the labor market may affect the level of the lowest nonaccelerating inflation rate of unemployment, or "NAIRU." For example, in the early 1980s, most economists expected oil prices to trend upward in real terms during the decade, and some expected food prices to do likewise. These assumptions tended to raise estimates of NAIRU, but neither assumption seems as compelling now. Thus, the improved outlook for food and energy prices should reduce NAIRU.

From 1978-1979 to the end of 1982, unemployment increased nationally by about five percentage points, primarily because of two recessions and a lack of economic growth. 2/ The effect of the recession has been very uneven, however, as Table 15 shows. Rates have been highest among blacks, Hispanics, and teenagers. Goods-producing sectors have been much more affected than service-producing sectors. Credit-sensitive sectors of the economy, such as construction and durable goods manufacturing, have been particularly hard hit. The highest overall rates of unemployment have been among blue-collar workers, notably in areas such as the industrial Midwest. Factors other than the recession, such as the appreciation of the dollar and structural changes in the economy, have also played a part.

Unemployment rates do not adequately describe the extent of the current slack in labor markets (see Table 16). The number of discouraged workers--persons who report that they want a job but are not looking for it because they believe they cannot find a job--rose to 1.8 million in the fourth quarter of 1982. That is substantially above the 1.2 million level reached in the previous deep recession of 1973-1975. Another 6.4 million persons were working part-time for economic reasons in the fourth quarter of 1982, compared with a previous high of 3.7 million in early 1975. Not counted in these estimates were all those who were bumped down in the depressed job market and had to accept jobs that did not make use of their skills.

The hardship occasioned by unemployment is difficult to measure directly, but several indirect measures are available. One is the duration of unemployment. In the fourth quarter of 1982, about 4.0 percent of the labor force, or more than 4.5 million workers, had been unemployed for 15 weeks and over, while 2.1 percent had been unemployed half a year or longer. In early 1975, the corresponding figures were approximately 2.0 and 1.0

1/ (Continued)

1981, approximately 23.4 million workers experienced unemployment sometime during the year, while unemployment averaged about 8.3 million--a ratio of about 2.8 to 1. In 1982, unemployment averaged about 10.7 million; however, during recessions the average duration of unemployment tends to increase, changing the ratio between total and average.

2/ Most of the increase in unemployment during recessions results from workers losing jobs, with little change in unemployment occurring in the categories of job leavers, reentrants, and new entrants (Table 16). From July 1981 to December 1982, most of the increase in unemployment (about 80 percent) was associated with job losses.

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TABLE 15. UNEMPLOYMENT RATES AMONG SELECTED GROUPS AND STATES (In percents)

	1978	1979	1982 3rd Qtr.	1982 4th Qtr.
All Civilian Workers	6.1	5.8	10.0	10.7
Black and other	11.9	11.3	17.7	18.6
Black	12.8	12.3	19.3	20.4
White	5.2	5.1	8.8	9.5
Hispanic	9.1	8.3	14.4	15.2
Teenagers	16.4	16.1	23.9	24.3
Black and other	35.9	33.2	46.2	44.6
White	13.9	14.0	20.8	21.5
Youths, ages 20-24	9.6	9.1	15.1	16.1
Older workers, 55 years and over	3.2	3.0	5.2	5.7
Married men, spouse present	2.8	2.8	6.9	7.6
Women who head families	8.5	8.3	12.0	12.3
Veterans				
Ages 25 to 29	5.9	5.7	13.3 a/	15.8 a/
Ages 30 to 34	3.1	3.3	8.3 a/	9.3 a/
Poverty Areas				
Metropolitan	12.4	11.5	17.7 a/	17.7 a/
Nonmetropolitan	6.6	6.4	10.9 a/	11.7 a/
Experienced Wage and Salary Workers	5.6	5.5	9.5	10.4
Industry				
Construction	10.6	10.3	20.9	22.1
Durable goods manufacturing	5.0	5.0	13.7	16.7
Nondurable goods manufacturing	6.3	6.5	11.3	11.4
Transportation and public utilities	3.7	3.7	7.0	8.1
Wholesale and retail trade	6.9	6.5	10.1	10.7

(Continued)

a/ Not seasonally adjusted.

TABLE 15. (Continued)

	1978	1979	1982 3rd Qtr.	1982 4th Qtr.
Finance, insurance, and real estate	3.1	3.0	5.1	5.2
Service	5.7	5.5	7.6	8.3
Government Workers	3.9	3.7	4.8	5.0
Agriculture	8.9	9.3	13.9	15.1
Occupation				
White-collar workers	3.5	3.4	4.9	5.4
Professional and technical	2.6	2.4	3.3	3.6
Managers and others	2.1	2.1	3.7	3.9
Sales workers	4.1	3.9	5.5	6.2
Clerical workers	4.9	4.7	6.9	7.7
Blue-collar workers	6.9	7.0	14.8	16.1
Craftspeople	4.7	4.5	11.0	11.6
Operatives, except transport	8.2	8.5	18.5	20.7
Transport equipment operatives	5.3	5.5	12.0	13.1
Nonfarm laborers	10.8	10.9	18.5	19.8
Service workers	7.5	7.2	10.6	11.4
Farm workers	3.9	3.9	6.2	7.2
Ten Largest States				
California	7.1	6.2	10.3	11.0
Florida	6.6	6.0	7.5	9.4
Illinois	6.1	5.5	12.2	12.8
Massachusetts	6.1	5.5	8.0	7.5
Michigan	6.9	7.8	15.2	17.0
New Jersey	7.2	6.9	8.8	9.5
New York	7.7	7.1	8.4	9.4
Ohio	5.4	5.9	12.4	14.2
Pennsylvania	6.9	6.9	10.9	12.2
Texas	4.8	4.2	7.3	8.0

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

TABLE 16. CHARACTERISTICS OF THE UNEMPLOYED AND MEASURES OF HIDDEN UNEMPLOYMENT
(In percent except as noted)

	1978	1979	1982 3rd Qtr.	1982 4th Qtr.
Unemployment Rate for All Civilian Workers	6.1	5.8	10.0	10.7
Rates by Reason for Unemployment				
Job-loser rate	2.5	2.5	6.0	6.6
Job-leaver rate	0.8	0.8	0.7	0.7
Reentrant rate	1.8	1.7	2.2	2.3
New entrant rate	0.9	0.8	1.2	1.1
Rates by Duration of Unemployment				
Median, all workers (weeks)	5.9	5.4	8.7	9.9
Distribution				
15 weeks and over	22.8	20.2	33.4	37.4
27 weeks and over	10.4	8.7	17.1	20.0
Unemployed 15 Weeks and Over	1.4	1.2	3.3	4.0
Percent Unemployed 27 Weeks and Over	0.6	0.5	1.7	2.1
Part-time Workers for Economic Reasons	2.8	2.8	5.3	5.8
Discouraged Workers	0.8	0.7	1.5	1.7

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

percent respectively. Another indirect measure of hardship is the extent of income support received by the unemployed. In this recession, a smaller proportion received unemployment insurance benefits than in the 1973-1975 recession. For example, in 1982 only 45 percent of the unemployed were receiving unemployment insurance (UI) benefits, compared with 75 percent in 1975. 3/

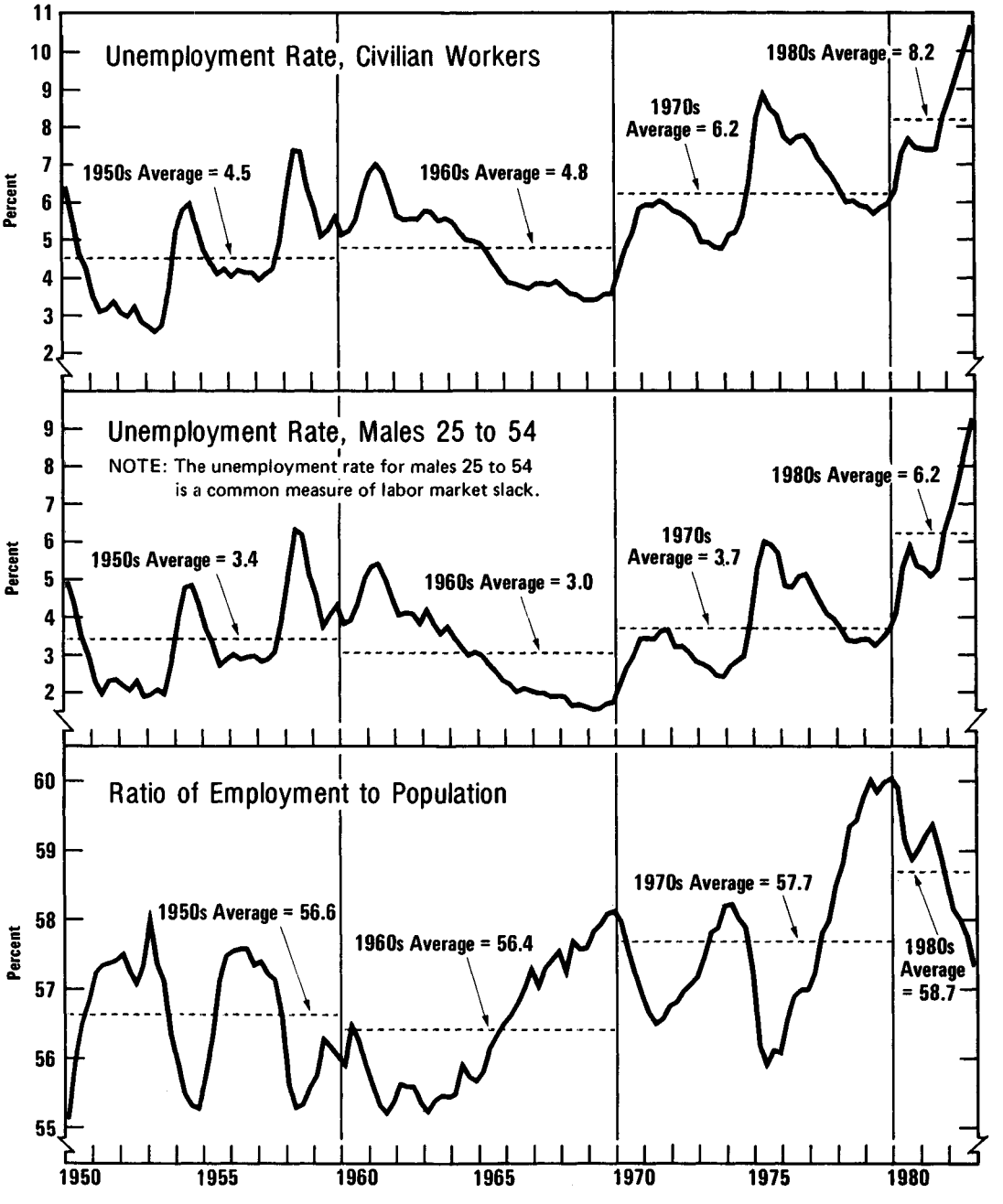
Some groups of the population suffer high unemployment even when the economy is relatively prosperous, as in the 1978-1979 period when unemployment stood at over 12 percent among blacks, 16 percent among teenagers, and 11 percent in poverty areas of cities. In addition, some occupations--generally less skilled occupations--are characterized by high unemployment in both good times and bad.

Two longer-term trends have been especially pronounced. First, while the overall unemployment rate is quite cyclical, it has drifted upward since the late 1960s (see Figure 25). Part of the upward drift is the result of demographic changes in the labor force and of increases in the scale of federal transfer programs--particularly unemployment insurance. However, the unemployment rate for adult males aged 25-54, which is relatively unaffected by these developments, has also drifted upward. The upward drift has occurred despite rapid growth in employment and a rising employment-to-population ratio during the decade of the 1970s.

The other trend has been an increase in the dispersion of unemployment rates among particular groups of the labor force (see Figure 26). Historically, the unemployment rate for blacks has been about twice that for whites; but as unemployment rates in general have moved up, the difference in percentage points has widened markedly. Recently, the racial gap reached 11 percentage points--21 percent unemployment for blacks as against 10 percent for whites (see Figure 27). Among black teenagers, measured unemployment rates have approached 50 percent (see Figure 28). In addition, the unemployment gap between youths and adults has widened considerably in the last 15 or 20 years. Finally, there are indications that unemployment resulting from factors such as international competition, technological change, and the energy price shocks may have become more widespread in recent years.

3/ Although some information is available on the wage earnings of families with an unemployed member, the lack of current information on all sources of income of the unemployed, including income transfers, makes it extremely difficult to monitor the extent of hardship.

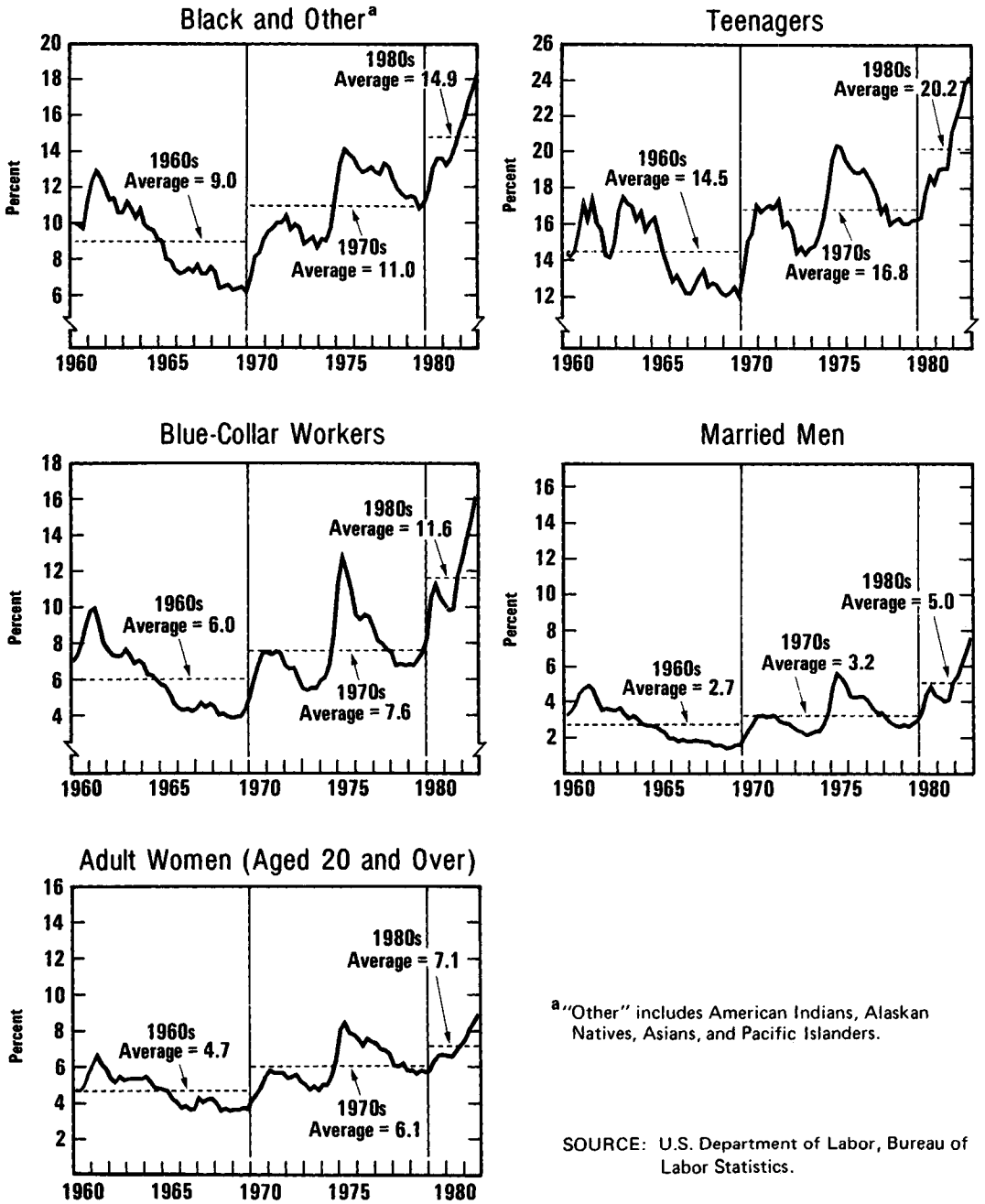
Figure 25.
Labor Market Trends



SOURCES: U.S. Department of Labor, Bureau of Labor Statistics; U.S. Department of Commerce, Bureau of the Census.

Figure 26.

Unemployment Rates, Selected Groups

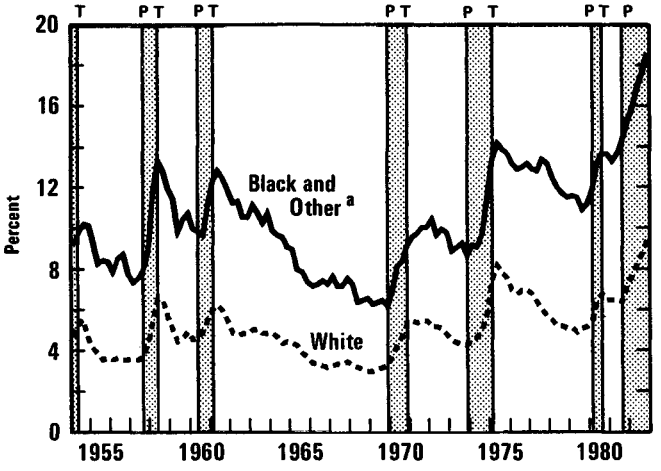


[a] "Other" includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

Figure 27.

Unemployment Rates by Race



SOURCE:
U.S. Department of Labor, Bureau of Labor Statistics.

[a] "Other" includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

NOTE: P and T lines represent business cycle peak and trough dates.

CYCLICAL UNEMPLOYMENT AND THE LIMITATIONS OF COUNTERCYCLICAL POLICIES

Most of the increase in the unemployment rate since 1978-1979 is a product of the economic slump. According to most estimates, about five percentage points of the current near-11 percent unemployment rate are recession-related and therefore not permanent. 4/ But improvement will be slow because the recovery is expected to be very weak by historical standards. Moreover, it will take a relatively large increase in output to make much change in the unemployment statistics. The reasons are:

- Productivity growth, or increase in output per worker-hour, tends to be especially rapid during the early phases of economic recovery, when businesses are able to increase production without a corresponding increase in the number of hours worked;

- The average length of the workweek also tends to increase during economic recoveries as part-time workers return to full-time work, and overtime hours increase; and

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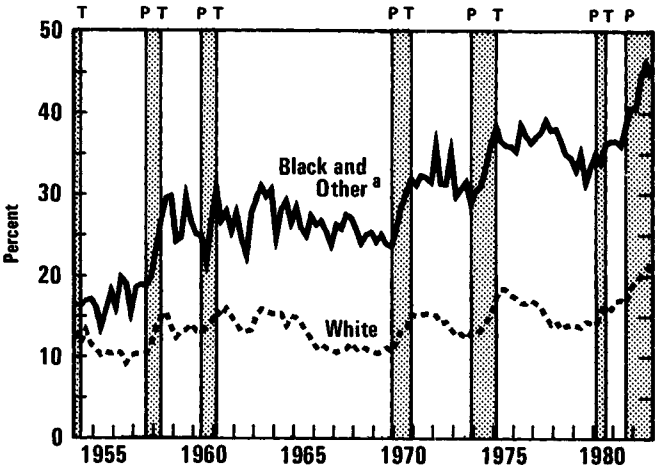
4/ Measured from the business cycle peak of the third quarter of 1981, the increase in unemployment has been only 3.3 percentage points. However, the recent recession was preceded by the shortest recovery in the post-World War II period. The recovery in 1981 was incomplete, leaving unemployment still relatively high.

Figure 28.

Teenage Unemployment Rates by Race (Ages 16 to 19)



SOURCE:
U.S. Department of Labor, Bureau of Labor Statistics.

[a] "Other" includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

NOTE: P and T lines represent business cycle peak and trough dates.

- The labor force also tends to grow more rapidly during economic recovery, in part because discouraged workers are encouraged to seek jobs and thus become counted in the work force.

A rule of thumb used by many economists is that it takes about two and one-half percentage points of sustained economic growth above the trend to lower the unemployment rate one percentage point after one year. If the upward trend in output is about 2½ percent annually, then 5 percent growth will lower the unemployment rate by only about one percentage point over one year's time. At that rate, it would take almost five years to return to an unemployment rate of 6 percent from the current rate of nearly 11 percent. At 4 percent growth, it would take about eight years. This rough relationship between economic growth and unemployment suggests that unemployment is likely to remain high for a number of years. 5/

5/ The rule of thumb is known as "Okun's Law." Economists recognize that it is a rough relationship, subject to change over time. In addition, Okun's law predicts relatively less accurately around turning points in the business cycle than at other times. See Arthur Okun, "Potential GNP: Its Measurement and Significance," Proceedings of the Business and Economic Statistics Section of the American Statistical Association (1962), pp. 98-104; and R. G. Sheehan and F. Zahn, "The Variability of the Okun Coefficient," Southern Economic Journal, vol. 47, no. 2 (October 1980), pp. 488-96.

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Monetary and Fiscal Policies

The federal government could try to hasten the decline in the unemployment rate by stimulating the economy. The question is whether this would be inflationary. Some economists believe that policymakers should aim at a moderate recovery involving 3 to 4 percent growth. Their rationale is that a moderate pace would maintain sufficient slack to keep inflation falling and bring down inflationary expectations. In addition, some economists believe that it is important that monetary policy not become expansive during recoveries. According to this view, even a moderate loosening of monetary policy could interfere with the downward adjustment of inflationary expectations--particularly in financial markets, but also in labor markets as well.

A case can be made for a somewhat faster economic expansion based on the very depressed state of the economy, particularly in sectors such as housing, automobiles, and capital goods. A prolonged slump could stall investment in new, more efficient plant capacity, in research and development, and in human capital such as worker training.

Under current conditions, stimulative monetary and fiscal policies would probably spur recovery without much adverse impact on inflation--at least for the first year or two. 6/ With record unemployment rates and low capacity utilization rates inflation would not be likely to heat up soon, although there might be some rise in price levels with the ending of the recession. Food and energy prices are unlikely to rise much in the near future. Moreover, other industrial economies have also been beset by stagnant growth and have large amounts of unused resources. Thus conditions for controlling inflation are generally more favorable now than they were in the middle and late 1970s. Stimulative policies might, during the first two years or so, involve some postponement of further reductions in the inflation rate--but probably not a major reacceleration of inflation.

Alternative Monetary Policies Estimates of possible unemployment and inflation rates under different rates of economic expansion have been made by Professor Robert J. Gordon of Northwestern University. Using an econometric model of the inflation process that emphasizes the roles of the unemployment rate and of past inflation, Gordon analyzed the economic

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6/ Also relevant are the monetary policies being pursued in other industrial countries. If U.S. monetary policy became much more expansive than those of other countries, it could depreciate the dollar and add to inflation through higher import prices. But it would encourage U.S. recovery by making exports more competitive.

implications of expanding nominal GNP at three alternative rates: 10.3 percent per year, 7.8 percent, and an intermediate path starting at 10.3 percent but decelerating to 7.8 percent in early 1986. With rapid expansion, inflation does not accelerate until after 1986, when unemployment falls below 6 percent; but by 1992 inflation approaches double-digit levels. With slower expansion, inflation continues to decelerate to approximately a 3 percent rate in 1986, but unemployment takes two years longer to reach the 6 percent level. Finally, with the intermediate path, a faster expansion is achieved but without an acceleration of inflation, because the unemployment rate does not fall below 6 percent. 7/

The alternative economic paths analyzed by CBO (Chapter III) show relationships between unemployment and inflation that are broadly consistent with the Gordon results. With the CBO high growth path, the unemployment rate falls to 7.0 percent in 1986, compared to 8.4 percent in the CBO baseline. The inflation rate is about half a percentage point higher in 1986, and about one percentage point higher in 1988 (see Table 9, Chapter III).

The estimates by Gordon, as well as the CBO alternative economic projections, suggest that GNP could grow quite strongly for a period of time without risking a speedup of inflation, since unemployment and idle capacity are now so high. Such estimates are highly uncertain, however, since economists do not know precisely where the borderline or "natural" unemployment rate is below which acceleration in inflation becomes likely; nor do they know with certainty how fast the economy could expand without increasing the risk of inflation even though unemployment might be somewhat above its so-called natural rate. 8/

7/ Robert J. Gordon, "Beyond Monetarism," testimony prepared for the Subcommittee on Domestic Monetary Policy of the Committee on Banking, Finance and Urban Affairs, U.S. House of Representatives, December 1, 1982.

8/ Other economists disagree with this analysis, arguing that increased money-supply growth could quickly increase both inflation and interest rates, and would therefore create problems as serious as those it was intended to solve. This view emphasizes the distinction between anticipated and unanticipated money growth, with only unanticipated money growth affecting output.

(Continued)

General Fiscal Measures. The use of fiscal policy to further stimulate the economy is severely constrained by high budget deficits. Measures that further increase the long-term deficit could add significantly to upward pressures on real interest rates, unless accommodated by monetary policy. Most economists believe that a temporary increase in the deficit while there is yet considerable slack in the economy would have smaller effects on real interest rates than a long-term increase in the deficit.

Monetary-Fiscal Policy Mix. A shift toward a less restrictive monetary policy in combination with a less stimulative fiscal policy would mean lower deficits and lower interest rates. Accordingly, it might encourage investment and longer-run growth; it might also reduce some of the dispersion in unemployment rates among industries and areas. In the short run, however, a balanced shift in the monetary/fiscal mix would primarily affect the composition of output and employment, rather than the level.

Targeted Fiscal Measures

Several types of special fiscal measures to stimulate jobs have been proposed for dealing with cyclical unemployment. These approaches--all of which have been used in previous recessions--include:

8/ (Continued)

CBO has developed estimates of the inflationary risk implied by this analytic point of view using the small rational-expectations model developed by Robert Barro and Mark Rush (see Barro and Rush, "Unanticipated Money and Economic Activity" in Stanley Fisher, ed., Rational Expectations and Economic Policy (University of Chicago Press, 1980)). The model used in making the estimates reported here was a reestimated version of that in the original paper, but its properties were similar. (Details are available upon request.) According to this model, using a steady money-growth policy to increase nominal GNP at rates near those in Gordon's intermediate alternative path results in an acceleration of inflation beginning in 1984. By 1986, the inflation rate measured by the GNP deflator is 7.1 percent, about two percentage points above that in Gordon's intermediate alternative. The forecasting record of this model and others like it has been poor in recent years. Moreover, the assumptions about the flexibility of prices and the availability of information on which it is based are highly unrealistic. For a discussion of some of the forecasting issues raised here, see Albert Ando, "Failure of Keynesian Economics and 'Direct' Effects of Money Supply: A Fact or a Fiction," University of Pennsylvania unpublished manuscript, July 1982.

- o Public works, particulary infrastructure construction or repair;
- o Public service employment;
- o Tax credits or wage subsidies for new private-sector employment;
- o Countercyclical general-purpose grants to state and local governments. 9/

A principal advantage of these approaches is that they can be targeted on individuals or areas that have been most severely affected by the recession.

In addition, some economists believe that carefully designed jobs programs can "shift the Phillips curve" by focusing on industries or areas that are most depressed, where increases in demand are less likely to lead to wage and price increases. 10/

There are two special points to be made about countercyclical jobs programs in the current context. First, unemployment is so large that jobs programs could help only a small fraction of the unemployed. Second, if credit conditions are tight, the stimulus effect of the jobs programs on overall employment would be substantially reduced. That is because the resulting increase in the deficit could exert upward pressure on interest rates and crowd out investment.

Public Works. One attraction of public works is that they represent capital investments and may even contribute to economic growth. Another

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9/ For a more detailed discussion of these and other measures to assist the unemployed see Congressional Budget Office "Strategies for Assisting the Unemployed," staff working paper (December 1982).

10/ The Phillips curve measures the relationship between inflation and unemployment. It implies that decreases in unemployment may be associated, at certain levels, with increases in inflation. See A.W. Phillips, "Employment, Inflation and Growth," Economica, New Series, vol. 29 (February 1962), pp. 1-16. Shifting the Phillips curve would be difficult if the programs themselves stimulated large numbers of people to enter the labor market. In addition, even though unemployment may be high in some unskilled labor markets, wages in those markets may still be responsive to reductions in unemployment. However, if the minimum wage has prevented wages from falling in such markets, some additional demand might be accommodated without resulting in wage increases.

advantage is that public works could provide employment for the especially depressed construction sector. But the amount of time needed to initiate, select, and complete projects tends to be long for most kinds of public works, particularly large-scale projects. The time lags involved in public works are a less serious drawback when unemployment is expected to remain at high levels for several years. Nevertheless, the impact on the deficit could come when the recovery is well underway--thus competing with private credit demands. Also, studies of past programs suggest that a relatively small share of the funds has gone directly to hire unemployed or unskilled workers.

Public Service Employment (PSE). Past experience suggests that direct job creation might proceed rapidly through the public service approach. Public service employment rose by about 40,000 per month under the economic stimulus package of 1977. Also, the job impact might be large per dollar of government spending because the bulk of the spending would go directly for wages and salaries, and the wage rates paid could be kept low. Past experience has shown, however, that these advantages are at least partly, and perhaps largely, offset by fiscal substitution, or the hiring of PSE workers in place of others who would have been hired without the program. Most analysts believe that targeting PSE on more disadvantaged workers tends to reduce the amount of substitution, but it slows implementation and creates additional problems for state and local governments. In addition, it has been difficult to cut back public service employment progams in a timely, countercyclical way.

Employment Tax Credits. Giving employers tax credits for increasing employment would have several potential advantages: First, the added employment and output would be in the private sector. Many people feel that the size of government ought to be diminished. Second, a job in the private sector may be permanent, and the job experience may have longer-run payoffs. Third, it would tend to reduce labor costs in the private sector, thus helping control the inflationary pressures resulting from the fiscal stimulus. Fourth, it would be carried out on a decentralized basis by private enterprise. On the other hand, critics question whether or not tax credits would lead to much additional employment. Some economists doubt that over short periods businesses have much flexibility in the amount of labor used to produce a given product or service. Limiting the tax credit to wages paid for increases in employment over some base period, as was done when this approach was tried in 1977-1978, might mitigate the concern, although some economists question whether the incremental approach is actually more cost-effective. The incremental approach favors firms in cyclical industries and firms that are growing relative to those that are stagnant or